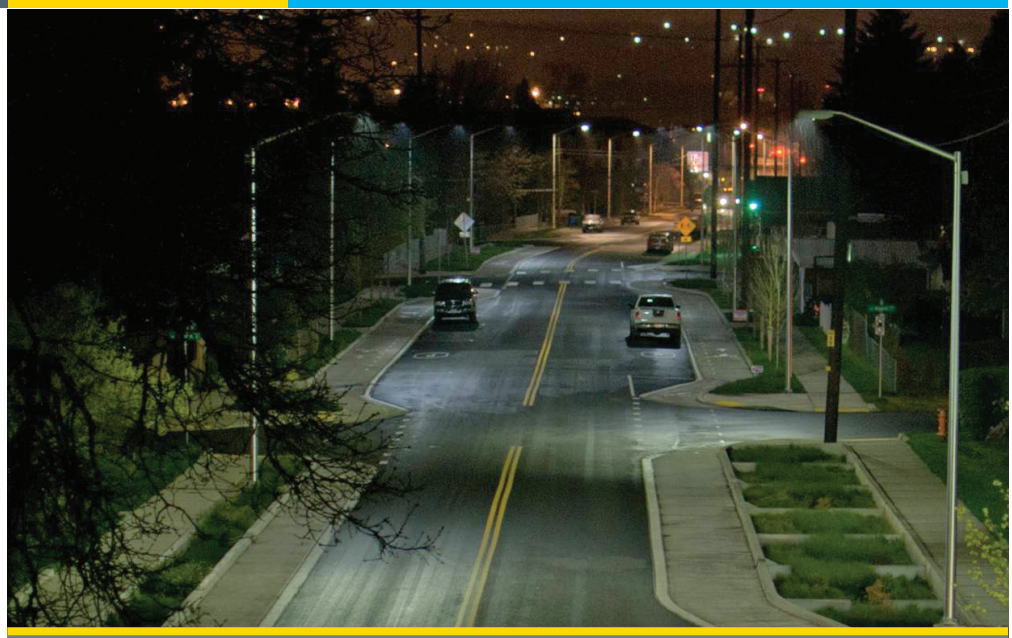
SOLID-STATE LIGHTING:

National Consortium Supports Cities in Evaluating LED Street Lights

To leverage the efforts of multiple cities pursuing evaluations of LED street lighting products, the U.S. Department of Energy supports the Municipal Solid-State Street Lighting Consortium. The Consortium collects, analyzes, and shares technical information and experiences related to LED street and area lighting demonstrations.

Cities, power providers, and others who invest in street and area lighting participate in the Consortium to share their experiences through national and regional meetings, webcasts, web-based discussion forums, and other means. The goal is to build a repository of valuable field experience and data that significantly accelerates the learning curve for buying and implementing high-quality, energy-efficient LED street lights.

The Consortium provides a forum for entities with similar backgrounds and needs to share questions and answers and enables more informed decisions about LED street lighting purchases. By joining the Consortium, even small municipalities can tap into a larger body of knowledge and experience that will maximize the value of their dollars spent evaluating LED street lighting.



Through the Municipal Solid-State Street Lighting Consortium, cities of all sizes share valuable field experience that informs their investments in LED street lighting. *Photo courtesy of Pacific Northwest National Laboratory.*

Who Can Join?

Membership in the Consortium is open to municipalities, utilities, and energy efficiency organizations, with participation at various levels from interested parties.

- **Primary members** include municipalities, power providers, building owners, and other decision-makers who invest in street and area lighting.
- **Advisory members** are solicited from organizations with a known history of promoting quality lighting and energy efficiency (e.g., educational institutions, environmental monitoring agencies) and are selected to fill specific Consortium needs.
- **Guests** include individual employees of organizations that meet the requirements for membership but whose organizations have chosen not to join.

The Consortium is intended to be a user's group, focused on the needs of participants making investments in street and area lighting. Manufacturers are excluded from membership, although they may be invited to present information on select topics at Consortium meetings and may also be given an opportunity to review draft specifications and other materials prior to their issuance.

How Can I Join?

Simply fill out the membership application on the Consortium website: ssl.energy.gov/consortium.html.

Related Materials

DOE offers a variety of resources to guide municipalities, utilities, and others in their evaluation of LED street lighting products. See ssl.energy.gov/resources.html or ssl.energy.gov/information_resources.html to download any of the following, including the video *Considering LEDs for Street and Area Lighting*.

Specifications help determine appropriate performance characteristics for a particular lighting application.

- *Model Specification for LED Roadway Luminaires:* Model specification to enable cities, utilities, and other local agencies to assemble effective bid documents for LED street lighting products.
- *High Efficiency Parking Structure Lighting Performance Specification:* Performance specifications for converting traditional high-intensity discharge (HID) technology to high-efficiency alternative technologies.
- *LED Site (Parking Lot) Lighting Performance Specification:* Performance specifications and evaluation criteria for using LED lighting in parking lots.

Other tools help evaluate LED lighting investments.

- *MSSLC Retrofit Financial Analysis Tool:* A spreadsheet calculator that provides municipalities, utilities, and other organizations a method of analyzing the cost and return on investment from lighting efficiency projects.

Technology fact sheets describe SSL characteristics, applications, and issues related to successful market introduction.

- *Outdoor Area Lighting:* Review of the concerns and potential for outdoor LED luminaires.
- *Establishing LED Equivalency:* Guidance for comparing products based on LED or other light source technologies.
- *LED Luminaire Reliability:* Outline of issues concerning long-term performance and reliability of LED luminaires and suggestions for interpreting LED product life claims.
- *Understanding LM-79 Reports:* Overview of typical elements in IES LM-79 reports for LED luminaires and integral replacement lamps.

White papers explore critical issues that impact SSL technology and market adoption.

- *Light at Night—The Latest Science:* Provides an update on current research related to nighttime exposure to light.

GATEWAY demonstrations showcase high-performance LED products in real applications.

- *LED Street Lighting, City of Sacramento Report:* Evaluation of four different LED replacement products—three lamp-ballast retrofit kits and one complete luminaire replacement—in ornamental post-top street lights.
- *LED Roadway Lighting, FDR Drive (New York, NY) Report:* Comparison of four different LED luminaires with the incumbent high-pressure sodium (HPS) luminaires on energy savings, light output, and performance characteristics.
- *LED Roadway Lighting, City of Palo Alto Report:* Assessment of energy, economic, and performance impacts of replacing HPS street lights with LED and induction street lights.
- *LED Street Lighting, Lija Loop (Portland, OR) Report:* Final analysis of the energy and performance impacts of replacing eight HPS street lights on one residential street with LED luminaires.
- *LED Roadway Lighting, I-35W Bridge (Minneapolis, MN) Report:* Analysis of Phase 1 results; Phase 2 involves long-term monitoring to evaluate lumen depreciation, physical effects, and performance impacts.
- *LED Street Lighting, City of San Francisco Report:* Performance study of LED street lights from four different manufacturers replacing 100-watt nominal HPS luminaires.
- *LED Street Lighting, City of Oakland Report:* Assessment of energy, economic, and safety impacts of replacing 15 HPS street lights on two public streets with LED luminaires.

CALiPER testing provides performance analysis and results for commercially available SSL products.

- *Round 11 Summary Report:* Products tested include roadway arm-mount and post-top luminaires, linear replacement lamps, high-bay luminaires, and small replacement lamps.
- *Round 10 Summary Report:* Products tested include parking structure luminaires, outdoor wallpack luminaires, cove lighting luminaires, and replacement lamps.
- *Round 7 Summary Report:* Products tested include outdoor area and street lights, downlights, and replacement lamps.

For More Information

For more information on the Municipal Solid-State Street Lighting Consortium, see ssl.energy.gov/consortium.html.

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

DOE/EE-0714 • May 2012

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